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PRELIMINARY REPORT

The Role of Air Strikes
in Attaining US Objectives in North Vietnam

Conclusions

The principal conclusions with respect to the role of air attack on North Vietnam are as follows:

- a. Under drastically revised ground rules, particularly through the removal of limitations on geographic areas which can be taken under air attack, and with a significant revision of the target systems selected, airstrikes by the United States and South Vietnam against North Vietnam could play an important role in assisting the achievement of US objectives.
- b. A continuation of the bombing under the ground rules which applied in 1965 and which are currently being followed probably would result in a virtually ineffective air attack program, even if the weight of bombardment were to be substantially increased.
- c. Since military action in South Vietnam against the Viet Cong and the regular units of the North

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Vietnamese army and the neutralization of their support facilities in North Vietnam are complementary measures, escalating the level of combat in South Vietnam is of major importance. The result would be substantially increased requirements for supplies from external sources to sustain the Viet Cong and the North Vietnamese army units. Potentially these requirements could be increased to the point where the capacity of Communist supply routes would be severely tested, and certainly the costs of furnishing logistic support to the insurgent forces could be sharply boosted.

d. Air attacks on North Vietnam, in themselves, are unlikely to provoke Chinese military intervention with ground combat forces, although additional assistance from China and the USSR could be expected to follow from more effective airstrikes.

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I. The Rolling Thunder Program

The US and South Vietnamese air campaign against North Vietnam has been the most restricted and voluntarily limited air war ever conducted by a major air power. It has been used as a carefully controlled means of gradual escalation to achieve strictly limited objectives. Attacks have been designed to minimize civilian casualties. In consequence, the Rolling Thunder program has yielded predictably small results.

A. Physical Effects

The estimated dollar cost for the restoration of economic and military targets damaged in the Rolling Thunder campaign is more than \$63 million. This amount is less than 10 percent of the value of the economic aid given to North Vietnam in recent years by Communist countries.

Restoration Costs of Facilities Attacked by the Rolling Thunder Program			
Million US \$			
	<u>Economic</u>	<u>Military</u>	<u>Total</u>
Attacks on fixed targets	23.6	26.4	50.0
Armed reconnaissance missions	12.8	0.7	13.5
Total	<u>36.4</u>	<u>27.1</u>	<u>63.5</u>

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More than 57 percent of this cost -- \$36 million -- is attributable to the destruction of economic targets. This cost has been broadly distributed throughout the economic sector. The major components of this economic damage include about \$10.5 million for bridges damaged or destroyed, \$6 million for transportation equipment, and \$7.8 million for electric power stations. The economic losses have failed to bring about any significant decline in economic activity. In terms of national capacity the greatest damage was inflicted on electric power and petroleum storage facilities. These target systems lost 27 and 17 percent, respectively, of their national capacity. In each case, however, the target system had adequate cushion in the form of excess capacity to maintain economic activity at almost normal levels.

The damage to military facilities is just over \$27 million. Almost 60 percent of this damage was to military barracks. The effect of this damage was negligible, however, because most of the barracks in the accessible target areas have been abandoned.

Other than losses of equipment, the damage to military facilities has prompted the abandonment of installations such as airfields and the dispersal of equipment and supplies normally stored in ammunition and supply depots.

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B. Casualties

Although the Rolling Thunder program has flown almost 26,000 attack sorties against targets in North Vietnam, the toll in human casualties has been light. Through the end of 1965, North Vietnamese casualties -- both civilian and military -- ranged from 11,700 to 14,800, divided about equally between killed and wounded.

About 55 percent of these casualties were military personnel. The strikes against JCS-designated fixed targets produced about two military for each civilian casualty, whereas the armed reconnaissance missions produced proportionately greater civilian casualties.

	Casualties Resulting from the Rolling Thunder Program		
	<u>Military</u>	<u>Civilian</u>	<u>Total</u>
Attacks on fixed targets	3,900 to 4,700	1,700 to 2,400	5,600 to 7,100
Armed reconnaissance missions	2,600 to 3,200	3,500 to 4,500	6,100 to 7,700
Total	<u>6,500 to 7,900</u>	<u>5,200 to 6,900</u>	<u>11,700 to 14,800</u>

The civilians killed or injured by armed reconnaissance attacks were for the most part truck drivers or transport and construction

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workers who were more or less directly engaged in maintaining the logistic pipeline to South Vietnam.

Approximately 3,000 civilian deaths as a result of military action against North Vietnam is a small number. The impact of 3,000 civilian deaths is slight in a country where more than 350,000 persons died in 1965 and where the accidental death rate produced casualties some three to five times greater than those resulting from the Rolling Thunder program.

C. Effects on North Vietnam

The Rolling Thunder attacks have not reduced or impeded the flow of essential supplies to North Vietnam or to the insurgent forces in the South. Nor has the will of the Hanoi regime wavered. The economic and military damage sustained under the attacks has presented an increasing but still moderate bill to Hanoi. In large measure this bill can be passed along to Moscow and Peiping.

The major effect of the attack on North Vietnam has been to force Hanoi to cope with the disruption of normal economic activity -- particularly in transportation and distribution. Reconstruction efforts have been hampered by difficulties in allocating manpower. The regime has relocated large elements of its urban population. Problems in the

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distribution of food have appeared, although these problems are not yet pressing. The bombing has forced a diversion of effort to keep roads and railroads open and sustain the flow of supplies to the South. The regime has been singularly successful in effecting countermeasures against US interdiction efforts.

Much of the bomb damage has been to installations which the North Vietnamese do not need to sustain the military effort. No attempt to restore petroleum storage facilities has taken place, and only recently have there been indications of intent to repair some of the damaged electric power stations. In both cases the failure to restore or repair is explained by the existence of excess capacity and the fact that the major and vital facilities have not been attacked.

A similar phenomenon is noted in the absence of repair of military facilities. The military leaders have chosen not only the outright abandonment of facilities such as barracks but also the dispersal of the materiel usually stored in ammunition and supply depots.

An examination of destroyed and damaged facilities shows that only a small number were truly essential to the war effort. The major essential restoration would consist of temporary measures to keep

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traffic moving, to keep the railroad yards operating, to maintain communications, and to replace transport equipment and equipment for radar and SAM sites. These measures can probably be effected at a cost of between \$4 million and \$5 million, or between 5 and 10 percent of the total economic and military damage sustained in North Vietnam to date.

In the long run the bill for economic and military damage will probably not be Hanoi's. The increasing Soviet and Chinese commitments and the flow of military and economic aid to North Vietnam imply an obligation to underwrite the economic restoration of the country on favorable terms. This assurance must be a controlling determinant in Hanoi's attitude toward the loss of its economic facilities. In the Korean War, similar economic losses did not deter P'yongyang during the conflict, and restoration assistance was provided by both China and the USSR.

Support of the insurgency in the South has been only indirectly affected by the bomb damage sustained in the North. North Vietnam's major inputs to the conflict in the South are its provision of military leadership and manpower and its function as the control center and logistic base for the Viet Cong and North Vietnamese force. North

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Vietnam serves essentially as the logistic funnel through which the flow of military supplies is maintained, particularly weapons and ammunition from the USSR and China. The air attacks have not reduced the flow of logistic supplies -- the flow has actually increased. The movement of trucks during the current dry season along the infiltration routes through Laos, for example, is twice the level of a year ago, and the North Vietnamese are using larger trucks with heavier loads. If this movement is sustained, the volume of supplies available for onward movement to South Vietnam -- some 50 to 70 tons per day -- will be at least three times the level sustained in 1965.

The North Vietnamese through intensive efforts have increased the capacity of the lines of communication and have made them less vulnerable to air attack. New bypasses and ferries now circumvent bombed bridges, old roads and trails have been improved, and new roads have been constructed. In several instances, roads previously limited to dry-season operation now have an all-weather capability. The current and projected dry-season capacity of the route through Laos is believed to be adequate to accommodate a buildup of the Viet Cong and North Vietnamese main force of at least 40 percent and an intensity of combat more than 10 times the present level.

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This ability to react and to offset the effects of the air attacks has not been without its costs. The diversion of manpower to tasks associated with dispersal programs, emergency repair, and maintenance of lines of communication throughout North Vietnam may require the full-time services of 200,000 workers (equivalent to about 20 percent of the nonagricultural labor force) and the part-time impressment of another 100,000. An additional 150,000 persons are also obligated, on a part-time basis, to serve in various aspects of civil defense which take them away from their normal pursuits. Thus a significant share of the labor force is diverted in varying degrees to supporting the war in the South .

D. What Message is Hanoi Getting?

The restricted nature of the US and South Vietnamese attack levied to date is undoubtedly understood by Hanoi as a reflection of divided counsel within the US Government. There is evidence that the regime has anticipated and has prepared the population for the eventual US abandonment of its self-imposed limitation on bombing activity in North Vietnam. In view of the even more limited nature of the US air attacks after the bombing pause, it is possible that Hanoi may believe

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that US failure to increase the scope and intensity of its air attacks reflects a divisiveness and lack of determination to get on with the war.

At the same time, a major determinant of Hanoi's attitude has been and will continue to be the course of the fighting in the South.

E. Effect on North Vietnam's Allies

In response to the US and South Vietnamese air offensive in 1965, all countries of the Communist camp have extended economic assistance to North Vietnam as proof of their support. The response on the part of North Vietnam's allies, however, has been unstinting in political and economic support and much more restrained in the military field. The major economic and military aid programs have been undertaken by the USSR and Communist China. The Eastern European Communist countries have generally extended only token amounts of assistance.

Total assistance extended by the USSR and Communist China in 1965 is in the order of \$250 million to \$400 million, of which military aid accounted for \$150 million to \$200 million. This aid is a relatively insignificant drain on the capabilities of both countries. In 1965 the value of military equipment and of economic aid provided to less developed countries of the Free World by the USSR was more than twice that supplied to North Vietnam in the same period.

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The USSR is by far the major source of military equipment for North Vietnam. The major components of Soviet military aid were SAM sites (15 to 20), antiaircraft guns (1,000 to 1,200), aircraft (44), motor vehicles (2,600), and radar and jet fuel. China's identified military aid, totaling only \$11 million, consisted principally of planes (8) and trucks (1,400). Military aid from the Eastern European countries, principally small arms and ammunition, medicines and medical equipment, and some trucks, is valued at a few million dollars.

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II. Why the Rolling Thunder Program Has Been Relatively Ineffective

The relative ineffectiveness of the Rolling Thunder program can be explained by three basic factors: (1) the negligible contribution of the economic plant in North Vietnam to the military effort in the South; (2) the highly restrictive (and militarily irrational) ground rules under which the program must operate; and (3) the fragmentation of the air attack on a variety of military and economic target systems, with the greatest weight of bombing effort being expended on a comparatively invulnerable rudimentary transport network.

A. Importance of North Vietnam to the Military Effort in the South

The North Vietnamese economy, which is basically one of subsistence agriculture, has only a small modern industrial sector concentrated in a few urban centers, including Hanoi, Haiphong, Nam Dinh, Viet Tri, and Thai Nguyen. The country imports little food even in poor agricultural years and depends largely on domestic production to feed its population of about 18 million persons. More than 80 percent of the ^{population} population is engaged in agriculture. North Vietnam produces only minor items of military equipment -- grenades, mines, mortars, and ammunition for small arms. All of its heavy military equipment and most of

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its small arms, ammunition, and medical supplies are imported from Communist countries.

North Vietnam provides three basic inputs into the conflict in the South: (1) military manpower, (2) a control center for the direction of insurgency, and (3) a logistic funnel for the stockage and movement of supplies. The first two of these inputs have not been subjected to air attack. The third input has been attacked very largely through a geographically restricted air campaign on the less vulnerable sectors of the transportation system. The more vulnerable sectors of the transportation system and the most attractive concentrations of military-associated stocks (POL and ammunition), together with the few industries of military support significance (such as cement), remain virtually inviolate.

B. The Restrictive Rules of the Rolling Thunder Program

The ground rules in force for the Rolling Thunder program guarantee the relative ineffectiveness of the program. The creation of large sanctuary areas containing the heart of North Vietnam's military, political, and economic strength grants a critical measure of immunity to Hanoi's support of the war in the South. In addition to exempting large numbers of valid military targets from attack, the ground rules

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of the Rolling Thunder program insure a virtually unimpeded flow of military supplies from North Vietnam's allies. Finally the preconditions established for the number of strikes and sorties, the methods of attack, and the avoidance of civilian casualties result in an operational disregard of basic principles of target selection. Among North Vietnamese target systems not one has been attacked either intensively or extensively enough to produce a critical reduction in national capacity, nor can any be so attacked under existing rules.

C. Some Principles of Target Selection

The following principles of target selection apply to the analysis of any industry or service which is being considered as a potential target system because of its contribution to military output or to the sustaining of military operations.

1. Use Pattern

This factor covers the extent to which a particular system really contributes to military output or to military operations, to civilian uses, to export, and so forth. Certain of these uses are essential and others are nonessential. The more detail in which a use pattern can be analyzed the more illuminating the process becomes.

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2. Depth

This factor covers the travel time of a product from the point of manufacture to the front line strength of the enemy. The travel time or lead time on the steel industry, for example, to the front line is probably on the order of a year or more, whereas aircraft assembly can be measured in terms of a few months.

3. Cushion

This factor includes a variety of considerations such as the extent to which pre-attack consumption must be cut back before essential requirements are affected, the extent to which the enemy can employ a substitute, the size of stocks, goods in the pipeline, and the like. The most important factor with respect to cushion is the determination of the so-called "critical point," which is the point to which the output of the target industry or service may be reduced without serious effect. Below the critical point the effects begin to be felt with increasing impact.

4. Target Vulnerability

This factor covers the appraisal of the physical vulnerability of a potential target system to attack by existing military means.

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The size of weaponry available and needed, the level of bombing accuracy which is achievable, the physical hardness of the target, and other pertinent considerations enter into this calculation.

5. Recuperation

This factor covers both the time and size of effort needed to repair or replace the essential parts of a damaged target system. The enemy's existing production of standard machine tools, for example, may be so large that a few days output would provide all the equipment needed to retool a target industry.

6. The Principle of Concentration

This factor is of overriding importance in attacks on either tactical or strategic target systems. The principle of concentration fixes attention on two primary factors:

- a. The essentiality of taking on all or the major part of any target system under attack, in order to cut through the cushion.
- b. The essentiality of concentrating the attack in point of time to overwhelm the ability to reconstruct or repair.

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D. Fragmentation of Attacks

The spreading of bomb tonnage over a great variety of military and economic target systems but attacking no one of these in depth has been characteristic of the Rolling Thunder program. The unattacked targets represent for any one system more than adequate capacity to meet all essential requirements. The attacks on major target systems in some cases have been phased out over such long periods of time that adequate readjustments to meet the disruption had been effected.

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III. Can Air Attack Significantly Further US Objectives?

If air attack is to be a significant factor in the attaining of US objectives, a substantial revision must be made in US self-imposed ground rules -- particularly those which place the most lucrative targets within sanctuary areas, such as Hanoi, and which deny promising courses of action, such as the mining of ports. Air attack alone almost certainly cannot bring about a meaningful reduction in the current level at which essential supplies and men flow into South Vietnam. Such a reduction may be achievable if ground action in the South compels the Viet Cong and North Vietnamese forces to fight at intensified scales of combat and/or succeeds in overrunning and denying to these forces access to stockpiles now in the South. Nevertheless, air attacks can increase significantly the price which North Vietnam pays to carry on the insurgency and reduce the ease with which it now carries on its support of the war in the South. To achieve these goals, the Rolling Thunder campaign would have to neutralize selected target systems in concentrated attacks.

A. Targets of Military/Economic Significance

Assuming that field commanders have the authority to neutralize all military target systems which prevent control of North Vietnam's

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air space, there remain valid military/economic target systems whose destruction would confront Hanoi and Peiping with far more serious adjustment problems than would a continuation of the Rolling Thunder program along the lines of the 1965 pattern.

1. POL

A major military/economic target system is represented by the nine unstruck petroleum storage facilities in North Vietnam. Almost two-thirds of the existing storage capacity is located in the Hanoi and Haiphong sanctuary areas. A virtually simultaneous attack on these facilities would eliminate almost all petroleum -- less than one month's supply -- and create an immediate short-term disruption of activity in North Vietnam. This attack would require an estimated 614 sorties and about 1,000 tons of ordnance. Although North Vietnam could, with Chinese assistance, restore the flow of essential petroleum supplies, the immediate effect would be one of considerable disruption. The difficulties of resupply would be increased by closing the ports through mining.

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2. Haiphong Cement Plant

The immobilization of this target could be accomplished with an estimated 20 sorties and 9 tons of ordnance. Since this is the only cement plant in North Vietnam, its loss would represent a major impediment to reconstruction and repair programs, at least in the short-run. Cement could be brought in from China, but since the plant is turning out 700,000 to 800,000 metric tons a year this would require a doubling of the present volume of all seaborne imports or a tripling of all land imports.

3. Insurgency Control Center

This target system consists essentially of major communications facilities, the national headquarters of the Ministry of National Defense, and the Party-Government building complex at Hanoi. All of these targets are located in the Hanoi sanctuary. An attack on them would require about 360 sorties and an estimated 445 tons of ordnance.

The effect of these attacks is debatable and depends on the extent to which the attacks produce mass casualties, or are surprise attacks. North Vietnam's reliance on high-frequency radio facilities means that the communications system for command and control purposes

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is essentially invulnerable to air attack. Moreover, known changes in North Vietnam's command and control system and plans for decentralization and the establishment of alternate control centers would, if in operation at the time of the attacks, tend to reduce their impact on Hanoi's ability to maintain order and control. Mass attacks on the major control and command centers which are located in densely populated urban areas would provoke a hostile reaction in other world capitals. For this reason and since the outcome of these attacks is debatable this course of action is not recommended at this stage of the war.

4. Skilled Manpower

The highest price that could be imposed on North Vietnam would be large-scale attacks on cities in order to maximize the number of casualties among skilled workers, thereby reducing their contribution to mobilization potential and to the maintenance of a viable economy. No calculations of the number of sorties, the volume of ordnance, or the probable number of casualties to be achieved by mass attacks on the eight urban cities have been made. To the extent that the attacks produce mass casualties and have a sufficiently harmful effect on

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civilian morale, however, the regime might find it increasingly difficult to continue with the war and might become more receptive to negotiations. However, attacks designed solely to produce mass casualties among a civilian population would be most difficult to support or justify at this stage of the war.

B. The LOC Target System

The basic source of logistic supplies not obtainable in South Vietnam for the Viet Cong and North Vietnamese forces and for North Vietnam's air defense is the USSR and China. The flow of these supplies can be made considerably more expensive and unreliable if authorization is granted to attack intensively the rail connections to Communist China and if the three major ports are effectively mined, thereby closing off the movement of oceangoing ships.

About two-thirds of North Vietnam's imports are carried by sea transport, and the remainder move principally over the rail connection with Communist China. Mining the entrances to the three major ports would effectively transfer all imports to rail transport since the highway connections to China have a limited capacity. The rail connection

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to Communist China, which is currently used at only about one-third of capacity, would then be forced to operate at close to full capacity. If the attack on other facilities, particularly the cement plant, were carried on at the same time, an import requirement would be generated which would be far in excess of rail capacity. The result would in effect be the creation of a highly consolidated and concentrated logistics target which when attacked would yield significantly greater results than those obtained by attacking the numerous small logistic target systems in the southern parts of North Vietnam and Laos. The logistic target system in the northern part of North Vietnam would then be more like such a system in a highly developed economy, which is required to maintain high levels of both economic and military traffic. The disruptive effect of interdiction of this rail system would then be more immediately felt. Sustained interdiction of the rail line would force Hanoi to allocate considerable amounts of manpower and materials to maintain the line, thus creating additional drains on the labor force and the economy. The repair of major bridge structures would be measurably more complex and expensive than the relatively simple expedients which keep traffic moving in the southern provinces and in

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Laos. Sustained 24-hour interdiction would probably stop all daylight traffic and disrupt nighttime traffic, thus slowing down the movement of supplies and making the logistic resupply of Communist forces considerably less reliable than at present. As a result, at least some economic requirements would have to go unsatisfied.

The North Vietnamese would probably be forced to make greater use of alternate means of transport such as coastal and inland waterways. Although it would be extremely difficult to interdict these systems, their greater use would increase the opportunities for harassment of actual traffic movements.

A significant lesson from the Rolling Thunder program to date is that the goal of sustained interdiction of the rudimentary road and trail network in southern North Vietnam and in Laos will be extremely difficult and probably impossible to obtain, given conventional ordnance and the strike capabilities likely to exist in 1966. The ease with which bypass roads, river crossings, and ferries can be constructed at little expense and the ability to resort to human transport when necessary make these unprofitable targets. This is borne out by our experience in both the Korean War and the present conflict. In Korea

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the interdiction program flew sorties at three times the level of Rolling Thunder against a logistics target system satisfying requirements almost 250 times as great as those of the present forces in South Vietnam. Yet the North Koreans were able to move in their daily logistic requirement and make significant additions to stockpiles.

The recent effort in Laos during the bombing pause also points out the ineffectiveness of conventional interdiction programs against simple logistic systems made up of highway targets. During the five-week period of the bombing lull, 9,000 sorties (8,000 of which were over the Panhandle) were flown to drop about 18,000 tons of ordnance on the supply routes to South Vietnam. Despite this effort the level of truck traffic moving south on these routes was twice the average of 15 trucks per day moving south during the same period in 1965.

For these reasons the sortie and ordnance expenditure currently used against supply routes in the South should be assigned to the more lucrative targets in the North. This change would bring the war closer to the North Vietnamese people, would yield a vastly greater return in terms of bomb damage, and would significantly raise the price to be paid for Hanoi's support of the war in South Vietnam. The

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occupation of the Panhandle by US or Allied ground forces would create an effective barrier to continued infiltration of men and supplies.

C. The "Hostage" Target System

North Vietnam's small modern industrial sector contains a few highly prized and nominally lucrative industrial targets. Principal among these are the Hanoi engineering plant, the iron and steel plant at Thai Nguyen, the Viet Tri chemical combine, and the Haiphong phosphate plant.

These plants and 10 additional smaller plants constitute almost all of the modern industrial targets. They could be neutralized by air-strikes involving about 500 sorties and the expenditure of slightly more than 500 tons of ordnance. Alternatively, an attack on the main electric power facilities could effectively put almost all of these plants out of operation.

Such an attack is often postulated as one which, by depriving Hanoi of almost all of its modern economy and the major hallmarks of its economic progress, will persuade the regime to enter into negotiations to end the war. This outcome is uncertain and probably unlikely.

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North Vietnam's modern industrial economy makes almost no direct or significant contribution to the war effort, which is sustained materially almost exclusively by supplies from other Communist countries. Since North Vietnam is essentially a subsistence economy, the industrial sector also makes only a limited contribution to economic activity. The loss of industrial production would have almost no impact on the great mass of this agrarian society. The small element of the population directly affected would hardly be sufficient, or disposed, to persuade the regime to stop the war. For these reasons an attack on the modern industrial base in itself would not be likely to attain US objectives.

The experience of the Korean War also supports this judgment. Korea in 1950 was a country with a population considerably smaller and an industrial base much larger than that of North Vietnam in 1965. [Almost all of Korea's modern industry was destroyed in the first three months of the war as part of a program to punish Korea and to force the North Koreans and Chinese to accept UN truce proposals. Nevertheless, this attack failed to impede seriously the North Korean military campaign or to dissuade the Chinese from entering the war.] In both North Korea and North Vietnam it is clear that the modern industrial

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base is too small to serve as a testing ground for the "hostage" concept of industrial destruction as a means of deterring aggression.

D. Summary of Recommendations

In summary, this analysis concludes that the target neutralization which would most greatly enhance the contribution of conventional airstrikes to the achievement of US objectives is the following time-phased operation:

1. First, the neutralization of petroleum storage (POL) facilities and the cement plant. This should be done as quickly as possible to maximize effectiveness and prevent the North Vietnamese from taking countermeasures. The result would be to present the Communists with a major problem of military and economic supply, to complicate essential reconstruction, and to increase import requirements significantly.

2. Following neutralization of these facilities, the interdiction of the ports by mining, to throw the burden of military and economic supply primarily onto the rail lines, which probably would not be able to handle all import requirements. Increased use of coastal and inland waterways and highways would be forced to help cope with the supply problem.

3. Following the mining of the ports, the concentration of bombing attacks on the China-North Vietnam LOC's, particularly the most lucrative rail targets. This effort, including

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24-hour armed reconnaissance, should begin to bite into the essential traffic flows needed to keep the economy functioning normally. The cost of maintaining a flow of military-economic supplies would be very greatly raised over current levels.

E. Probable Chinese Reactions

The Chinese reaction to the expanded air attacks considered in this report will probably follow the lines already taken -- that is, an increased flow of military and economic supplies; the provision of additional manpower to assist in reconstruction and logistic efforts; and possible anti-aircraft units. The Chinese will maintain strong political pressure on the North Vietnamese to continue the war effort and to refuse to negotiate or withdraw. The support given to North Vietnam by China will reflect a generally cautious approach to avoid any possible US retaliation.

The risk of Chinese reaction may grow, however, as the attacks approach the Chinese border, and there would undoubtedly be a vigorous reaction if Chinese air space were penetrated. None of the attacks recommended in this analysis would, however, be of a type not eventually anticipated by both the Chinese and the North Vietnamese.

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Neither are the attacks of a magnitude that would induce the Chinese to initiate military action against the US solely because of the loss of lives or the neutralizing of target systems in North Vietnam.

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